

this table contains the data for a single test, except that “startsec” has been converted to the actual date and time that the test started, as shown in the “Start” column, and the test duration in the “Dur” column is calculated by subtracting “startsec” from “end sec”. Values that are not applicable or missing for some reason, e.g., mean error RT when no errors were made, are coded as an asterisk “\*”. The “Subject” and “Test” boxes may be used to select the data displayed in the table. The data displayed in the table can be copied to a Windows Clipboard as tab-delimited text by choosing Copy from the main menu **152**, or by typing CTRL+C. The copied data can then be pasted into other Windows applications, such as MS Excel, for further processing.

**[0092]** Downloaded data are automatically saved to a file in the “data” subdirectory of the directory in which the data manager program **150** is located. The file name is the date and time of the download (mmddyy\_hhmmss), and the file type, that is, the file name “extension”, is “ARD”. The .ARD file is a binary file that can be read with the data manager program **150** by choosing File and then Open from the main menu, or by clicking the Load File button. Both the data and the subject information from the PDA **10** are also inserted into the ARES.MDB Microsoft Access database when the data are downloaded. This feature permit sophisticated users to easily extract information of interest from large data sets, to combine data sets, and to partition data to suit investigational or clinical needs. If the data are already present in ARES.MDB, they will not be duplicated, permitting repeated downloads from the same PDA **10** without clearing the database on the PDA. The ARES.MDB database is accessed by selecting the View Archive from the main menu to display the entire data table from the ARES.MDB database. This table can be sorted on any variable by selecting a column and clicking one of the Sort buttons. The entire table, or selected rows can be copied to the Windows clipboard and pasted into other Windows applications.

**[0093]** When a subject is registered in ARES, a minimal amount of information is required. To view and edit this information, the Subject Database is selected from the main menu **152** of the data manager program window **150**. The panel **160** shown in FIG. **17** provides complete access to the Subjects data table of ARES.MDB. The user can navigate between records, i.e., subjects, using the arrow buttons at the top of the panel. Searches can be performed for subjects by name or ID by selecting the appropriate option button, and by entering the beginning characters of the name or ID in the Find box. Any changes made to any of the fields on this panel are immediately transferred to the database. Until a new record is loaded, clicking the Undo button will reverse any changes that are made. This panel **160** provides several additional fields that can be useful for identifying and classifying subjects. Spare1 through Spare5 are for numerical values. The Comment field will accept up to eighty (80) characters, and the Experiment and Group fields will accept up to twenty-five (25) characters each. The copy button places the contents of all the fields on the Windows Clipboard so the data can be pasted into other Windows programs.

**[0094]** To install, list, or remove custom test batteries on the PDA **10**, Battery Manager is selected from the main menu **152**. Custom batteries are distributed as “\*.ARB” files. For example, NeuroCog.ARB, Commander.ARB, and Warrior.ARB are placed in the ARES folder when the data manager program is installed. FIG. **18** illustrates the battery manager window **170**. The Select ARB Battery button or the menu File

and Open ARB battery is used to locate the desired file for installation. The tests in the battery will be listed in the “Tests” box **172**. The properties of each test may be listed in the “Test Parameters” box **174** by clicking the test name. By selecting File and Print ARB Battery or by clicking the print button, a hard copy of the battery with all of the test parameters may be printed. Clicking the copy button puts a copy of the battery with all of the test parameters on the Windows Clipboard. The Battery Manager window **170** further provides buttons for installing the battery on the PDA, for listing the batteries on the PDA, and for deleting a battery from the PDA.

**[0095]** The data manager program **150** can produce graphical plots of data from the ARES.MDB data table. To open the plot screen, Plot Data is selected from the main menu **152**. FIG. **19** illustrates the graphical display of data window **180**. To plot data from the ARES.MOB archive, a Battery, Subject, Test, and Variable are selected from the drop-down lists **182**. The Battery, Test and Subject lists are populated with all of the instances of the respective items from the ARES.MDB data table. The Variable drop-down list allows variables to be selected for the entire session, for the first half of the session (1), or for the second half of the session (2). These variable include Mean Correct Response Times (RT), SD of Correct RT, Median of Correct RT, Percent correct, Lapses, and Thru-put. Up to ten different variables can be displayed on the same graph in the preferred embodiment of the invention. Further, the plot window can be minimized, moved, and maximized, and the properties of each variable can be changed by right-clicking on the variable in the legend.

**[0096]** ARES Administration Functions, illustrated in FIGS. **9**, **10**, **11**, and **12** are accessed through the options menu **34** of the main ARES window shown in FIG. **4**. To access the Administration Functions, the user must enter a password on the password screen **90**, as shown in FIG. **9**. The password is provided to authorized individuals, only. When this password is successfully entered, the Admin functions are “unlocked” and need not be entered again until ARES is closed. An open padlock **32** on the main ARES screen indicates the unlocked state. Once a correct password is entered, the admin functions screen **92** of FIG. **10** is activated. The first button launches the AresSub application for registering new subjects and for modifying the records of existing subjects. The Demo Single Test button allows a single test module to be run for demonstration purposes as shown in FIG. **11**. The Database Manager screen of FIG. **12** is provided for maintenance of the ARES databases on the PDA. The clear data base button allows a data database (ARDataDB) to be deleted from the PDA. Beam buttons use the Palm OS “Beam” function to transfer the data and battery (ARBatDB) databases to another PDA. These functions are used when setting up PDA.

**[0097]** Although a preferred embodiment of the invention has been described above by way of example only, it will be understood by those skilled in the field that modifications may be made to the disclosed embodiment without departing from the scope of the invention, which is defined by the appended claims.

What is claimed:

1. A file system storing an executive program and a plurality of modules such that when the executive program is executed by a processor the executive program controls the plurality of modules comprising:

a plurality of test modules for executing a specific individual test to test a cognitive attribute of a user;